MUMBAI

American Center Bulletin

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CLEAN SUSTAINABLE ENERGY

The Energy Challenge

Ensuring access to ample, affordable, clean, and sustainable sources of energy is unquestionably one of the greatest challenges facing the modern world. The U.S. Government and America's private sector and nongovernmental organizations are confronting it by building on a long tradition of clean energy research to develop transformational technologies that will reduce our reliance on oil and have far-reaching benefits for the entire world.

By embracing the energy challenge, the United States is working to promote energy security, reduce poverty, reduce harmful air pollution, and address climate change. These efforts often strengthen self-governing societies by building a culture of democracy at the grass-roots level.

Rarely does a day pass without an energy-related issue making the headlines. Whenever world leaders meet, energy is an important and urgent topic of discussion. From the 2002 World Summit on Sustainable Development to the 2005 Gleneagles Group of Eight (G8) Summit to the 2005-2007 energy cycle of the UN Commission on Sustainable Development, energy is front and center.

And for good reason. Supply disruptions and rising prices loom large in day-to-day decisions about how we fuel our vehicles, heat our homes, and power our businesses. What's more, approximately two billion people – nearly one-third of the world's population – lack access to the modern energy services that are essential for bringing schools into the 21st century, driving industry, moving water, and boosting crop production, as well as for lighting, heating, and cooling health facilities.

The integrated goals of energy security and poverty alleviation are also inextricably linked with the need to reduce harmful air pollution and address climate change. The World Health Organization estimates that 4400 people die every day from indoor air pollution, much of which is associated with unhealthy cooking and heating practices.

Developing Clean and Affordable Energy Technologies

The United States believes that the best way to promote energy security and help nations develop, while protecting the environment and improving public health, is to promote clean and affordable energy technologies. We will need a diversified approach that includes conventional, advanced, and renewable energy and energy-efficiency technologies.

The U.S. Government, frequently in partnership with the private sector, is pursuing both domestically and internationally a suite of technologies that should be incrementally deployed by the second half of this century. These include new biofuels from nonfood crops; clean coal technology; commercialization of plug-in hybrid autos; hydrogen fuel cell technology; more efficient, proliferation-resistant nuclear systems; and fusion technology. And these are just the highlights.

In his January 2006 State of the Union address, President George W. Bush outlined a strategy to reduce America's dependence on oil. The president's Advanced Energy Initiative proposes a 22 percent increase in funding for clean energy research at the U.S. Department of Energy. This includes greater investment in solar and wind technologies, zero-emission coal-fired power plants, clean nuclear technology, and ethanol.

It is important that we not only develop clean energy technologies but also work to make them more affordable and accessible. That is why the U.S. Government has spent more than $11.7 billion since 2001 to develop alternative energy sources. This funding has contributed to a dramatic reduction in the cost of renewable energy. As the costs of conventional energy rise, the private investment community is responding. In 2005, we saw $44 billion of new capital investment in renewable energy technologies in the electricity sector. Renewables now comprise approximately 20-25 percent of global power sector investment.

As we strive to develop new sources of energy, we are also working hard to reduce our energy consumption. A leading example of this effort is Energy Star, a U.S. Government-backed program that helps businesses and individuals protect the environment through superior energy efficiency. With the help of Energy Star, Americans saved enough energy in 2005 alone to avoid greenhouse gas emissions equivalent to those from 23 million cars – all while saving $12 billion on their utility bills, or four percent of the United States' total annual electricity demand.

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HOLIDAYS

NONE

A WORD FROM THE CENTER

Recent events have caused many countries in the world to reflect on their energy reliance and to look into alternative energy sources to reduce their dependency on imported oil and gas. As oil prices are also on the rise, the need for alternatives is clear. In addition to the high cost of energy, other factors such as reducing air pollution, addressing climate change, and promoting energy security are all factors that have motivated increased interest.

India, a leader in the adoption of natural gas vehicles, converting tens of thousands of auto-rickshaws and buses and taxis, is moving in the right direction. However, the importance of depending more on renewable energy sources to meet soaring demand is increasingly apparent, and we should encourage our policymakers in both the U.S. and India to do more to promote renewable energy.

Kristina M. Dunne
Assistant Cultural Affairs Officer

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Disseminating Technologies Through Public-Private Partnerships

Women working below wind turbines in India

Multi-stakeholder partnerships with governments, civil society, and the private sector are critical to addressing the energy challenge. The United States participates in a broad spectrum of partnerships, with groups ranging from small American nongovernmental organizations building and demonstrating the use of simple solar cookers in African refugee camps to broader regional alliances such as the recently launched Asia-Pacific Partnership on Clean Development and Climate. This voluntary partnership with Australia, China, Japan, India, and South Korea – countries that together with the United States represent over 50 percent of global energy use and greenhouse gas emissions – has as its goal the accelerated deployment of cleaner, more efficient technologies and the meeting of partners' respective national pollution reduction, energy security, and climate change objectives. The Asia-Pacific Partnership will engage stakeholders from key economic sectors as full partners in addressing clean development and climate issues in an integrated manner.

In order to foster public-private alliances, the U.S. Agency for International Development (USAID) created the Global Development Alliance in 2001. Through this innovative program, USAID has funded programs with nearly 400 alliances, with more than $1.4 billion in government funding leveraging more than $4.6 billion in partner resources.

The ultimate measure of the partnerships' success is whether they deliver concrete, on-the-ground results. When we talk about measurable results, a really positive story is emerging from some of the partnerships launched almost four years ago at the World Summit on Sustainable Development in Johannesburg. One example is the Partnership for Clean Fuels and Vehicles, one of the four performance-based, market-oriented partnerships under President Bush's Clean Energy Initiative, a multifaceted approach to addressing access to energy and improving energy efficiency and environmental quality. In 2002, leaded gasoline was used in all but one country in sub-Saharan Africa. By the end of 2005, with the assistance of the Partnership for Clean Fuels and Vehicles, all 49 sub-Saharan African countries had stopped refining and importing leaded gasoline. This change will have a significant health impact on many of the 733 million people living in these countries.

The United States is committed to transparent reporting on the partnerships in which we participate. Toward that end, we have created a web site – www.SDP.gov – to provide continuously updated information on U.S. sustainable development partnership efforts.

Building Effective Policy and Regulatory Frameworks

One of the keys to disseminating clean-energy technologies is ensuring the development of markets to receive them. Effective policy and regulatory frameworks at the local and national levels are absolutely necessary to encourage the level of private sector investment that will be needed in the coming decades.

The U.S. Government is making significant progress to build capacity throughout the developing world. From their work on providing reliable energy services in poor slum areas in India to setting rules for power trading in Southern Africa to improved public participation in energy sector decision-making globally, we are working with developing country ministries, utilities, and end-users to build the kind of institutional and market structures that will encourage investment in the energy sector.

The United States is also proud to work with its G8 colleagues and a number of other partners on the Extractive Industries Transparency Initiative (EITI). EITI supports improved governance in resource-rich countries through the full publication and verification of company payments and government revenues from oil, gas, and mining.

Fostering Democratic Habits at the Grass-Roots Level

Increasing access to modern, clean, healthy, and efficient energy services can help lift people out of poverty and protect the environment. Perhaps equally important, the very act of providing energy services offers tremendous opportunities for communities to come together to learn and practice the fine art of democratic decision-making.

The roots of strong democracies reach much deeper than the act of voting, resting on a foundation of social cohesion and participatory institutions. For the individual rural villager or urban slumdweller, the quest for energy services hinges on whether or not the institutions that serve the community are accountable to their constituency. Far too often, citizens' needs are not fully incorporated into political decisions about who gets what, when, where, and how.

A number of innovative electrification initiatives across the globe are addressing this problem by fostering local community structures that can bridge the gap between households and service providers. For example, USAID supported an alliance in Ahmedabad, in which local nongovernmental organizations served as intermediaries, assisting slumdwellers with financing and acquiring the appropriate documentation regarding land ownership to make them eligible for legal electricity service. The results are impressive. In the pilot project, 820 households were upgraded from illegal and unreliable service to regularized electricity. The utility is now rolling out the program to an additional 115,000 poor urban households. In Salvador, Brazil, the utility COELBA has hired

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local "community agents" to work with the local citizens and community leaders to identify and resolve problems, as well as to provide education on energy conservation practices. Thus far, COELBA has electrified more than 200,000 households. Building on this success, USAID and the U.S. Energy Association are supporting a South-South exchange between COELBA and Angolan electric utility EDEL.

By involving community intermediaries in electrification efforts, these programs are strengthening democratic habits at the grass-roots level. They build trust, form social capital, and allow people to voice their concerns. In so doing, they not only connect customers to electricity but also enable citizens to learn what it means to participate in democratic processes. This experience and these newly-formed skills can easily be applied to other aspects of social and political life, ultimately contributing to a stronger, more robust, and more secure democratic culture.

Meeting the Challenge

The United States is pursuing a clean energy future that rises to the significant challenge before it. Their approach draws upon the best scientific research, harnesses the power of markets, fosters the creativity of entrepreneurs, and works with the developing world to meet their dual aspirations for vibrant economies and a clean environment.

The Five Major Energy Efficiency Policies

The energy efficiency gains in the United States have resulted from four explicit policies and one implicit policy. The four explicit policies have involved these:

- Appliance efficiency standards
- Utility demand-side management (DSM) programs (utility investments to increase customers' energy efficiency)
- Building-energy standards
- Corporate automobile fuel economy (CAFE) standards

The implicit policy has been one by which the federal government does not stand in the way of modest energy price increases. That is, unlike other industrialized countries in which energy prices are much higher, the United States does not tax oil to reflect a broad range of external costs.

Of the four explicit policies, three are very actively pursued in the United States. The Energy Policy Act of 2005 set levels that led to 15 appliance standards. The U.S. Department of Energy, under judicial court order, is aggressively pursuing standards that will be issued over the next two to five years for 17 additional products.

DSM – utility programs working to increase energy efficiency on the customer side of the meter – appeared for a time to be stalled because of utility restructuring, but has come roaring back. One of the most successful utility DSM programs carried out by many utilities has involved rebates for replacing inefficient fluorescent lighting with efficient lamps.

California utilities will invest $2 billion over three years in DSM, almost double the previous level and quadruple the average over the last decade.

(Continued on page 4)

NOTES FROM THE AMERICAN LIBRARY

A Select Webliography on Clean Energy Solutions

http://www.ase.org/
Alliance to Save Energy

http://www.ethanol.org/
American Coalition for Ethanol

http://www.aceee.org/
American Council for an Energy-Efficient Economy

http://www.acore.org/
The American Council on Renewable Energy

http://www.awea.org/
American Wind Energy Association

http://www.ceert.org/
Center for Energy Efficiency and Renewable Technologies

http://www.cleanedge.com/
Clean Edge

http://www.energystar.gov/
Energy Star

http://www.eesi.org/index.html
Environmental and Energy Study Institute

http://www.inl.gov/
Idaho National Laboratory

http://web.mit.edu/mitei/
MIT Energy Initiative

http://www.hydro.org/
National Hydropower Association

http://www.nrel.gov/
National Renewable Energy Laboratory

http://www.ofee.gov/
Office of the Federal Environmental Executive

http://www.rff.org/
Resources for the Future

http://www.netl.doe.gov/
U.S. Department of Energy – National Energy Technology Laboratory

http://www.state.gov/e/eeb/
U.S. Department of State – Bureau of Economic, Energy and Business Affairs

http://www.epa.gov/cleanenergy/
U.S. Environmental Protection Agency – Clean Energy

http://sustainability.berkeley.edu/
Sustainability at the University of California, Berkeley

Note: *Internet sites included in this listing, other than those of the U.S. Government, should not be construed as an endorsement of the views contained therein.*

MUMBAI MONDAYS

A Discussion on
Undergraduate Education in the United States
led by Mike Carver

Monday, June 18
American Center Auditorium **6:00 p.m.**

The discussion on undergraduate education in the United States will focus on the application and admissions process and how it, and the system of education as a whole, differs from that in India and other countries.

Mike Carver joined the State Department in May 2003. His first assignment was in Dubai, UAE, as the Political/Economic Officer. After completing a year of Russian-language training, he worked for four months as a Reporting Officer at the U.S. Mission to the United Nations in New York. Before joining the State Department, Mike taught for six years in Istanbul, including TOEFL, GRE, GMAT, and SAT. He privately counseled students in test-taking techniques and the university application process, and has helped students get accepted at Harvard, Stanford, Dartmouth, and other universities. He has a B.A. in Economics from Amherst College.

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According to the utility forecasts, this will cut electricity demand growth from two percent per year to 0.5 percent per year over the next decade. California is among the most aggressive states in promoting energy efficiency. Electricity demand growth is expected to be reduced by about 85 percent over the next decade, compared to a projection without the appliance/building energy efficiency and utility DSM programs. As shown by this state's pursuit of electricity end-use efficiency for at least two decades, good energy efficiency investment policies can bring significant results over the long term. This is not widely recognized by the public or by public policymakers.

The third policy involves energy efficiency standards for buildings. Like utility demand-side management, building standards are generally set at the state level and implemented at the local level. As such, performance varies greatly among states. In part because of important achievements in federal research and development (R&D) programs, energy use in new buildings is two-thirds to one-half that of existing buildings, resulting in an assurance of savings over the lifetime of the building.

There are two critical factors necessary to continue this success story: (1) revitalization of the federal R&D effort on energy efficiency in buildings, an effort that produced technology that enabled energy efficiency improvements; and (2) strengthening of the building energy standards. Several states – especially those on both U.S. coasts – have programs for updating and strengthening standards, but most states do not.

The fourth policy – and the one that is directly related to oil supply security – is auto fuel economy standards. In the long term, the solution to oil imports will require an economically and environmentally viable replacement for oil. But this will not happen soon. Oil imports will continue to rise for the coming decades. While there is universal agreement that the United States needs to cut imports, the problem is not being addressed. This increases our peril in the world.

The American Center acknowledges the following web sites in compiling this essay:

http://usinfo.state.gov/journals/ites/0706/ijee/dobriansky.htm
http://usinfo.state.gov/journals/ites/0706/ijee/levine.htm

FILMS THIS MONTH

Friday, June 15 ***Six Degrees of Separation*** (1993, color, 112 mins)

Friday, June 22 ***Swing Shift*** (1984, color, 100 mins)

American Center Auditorium **3:30 and 6:30 p.m.**

Triumphant translation of John Guare's award-winning play stars Will Smith as Paul, the slick and possibly dangerous con artist who poses as Sidney Poitier's son in order to infiltrate the household of snooty art dealers living on Manhattan's Upper East Side. Donald Sutherland, Stockard Channing, Ian McKellen, Mary Beth Hurt also star.

When World War II breaks out, housewife Goldie Hawn joins thousands of other women on an airplane factory assembly line. Her offbeat love affair with Kurt Russell, new friends and experiences on the line make this a funny, poignant film. Christine Lahti, Ed Harris, Fred Ward, Holly Hunter costar; Jonathan Demme directs.

JUNE 14

U.S. FLAG DAY

America's Beautiful Landscapes, Architectural Marvels and Monuments

a PowerPoint presentation and slide show to commemorate U.S. Flag Day

by

John Dunne and Parshotam P. Hirani

Thursday, June 14
American Center Auditorium **6:00 p.m.**

John Dunne is a Foreign Service Officer who is currently serving in Mumbai. Prior to joining the State Department, John worked as a high school English teacher in Samoa and as a biologist/firefighter with the National Park Service in Alaska and California. He also worked in National Geographic Television's Natural History Unit. John has a B.A. in English from Saint Joseph's University in Philadelphia, a B.S. in Biology from the University of Alaska, Fairbanks, and an M.A. in Journalism from the University of Missouri, Columbia.

Parshotam Hirani, better known as P. P. Hirani, is a well-known photojournalist who has been in this field for over 54 years and has traveled to 34 countries. He has been visiting the United States since 1979. His skillful photos have been published in several leading Indian and overseas newspapers, magazines and journals.

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Admission to all American Center programs, restricted to persons over 16, will be on a first-come, first-served basis. Please bring the envelope containing this issue of the bulletin for admission (maximum two persons). The auditorium doors will open 30 minutes before the start of the program.